

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number **10/022,668**
 Filing Date **December 18, 2001**
 First Named Inventor **Rex Eugene Murray**
 Group Art Unit **1754**
 Examiner Name **Unassigned**
 Attorney Docket Number **2001U013.US**

Total Number of Pages in This Submission **8**
(references)

ENCLOSURES (check all that apply)

- ☐ Fee Transmittal Form
- ☐ Preliminary Amendment / Response
- ☐ After Final Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☒ Information Disclosure Statement
- ☒ 1449 Form
- ☒ Copies of References
- ☐ Certified Copy of Priority Documents)
- ☐ Response to Missing Part/ Incomplete Application

- ☐ Assignment Papers (for an Application)
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition Routing Slip (PTO/SB/69) and Accompanying Petition
- ☐ To Convert a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund

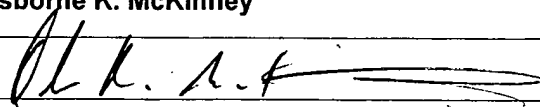
- ☐ After Allowance Communication to Group
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Additional Enclosure(s) (please identify below)

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REMARKS

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Or Individual name **Osborne K. McKinney** Registration No. **40,084**

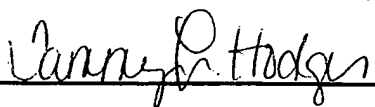
Signature 

Date **August 16, 2002**

CERTIFICATE OF MAILING

I hereby certify having information and a reasonable basis for belief that this correspondence will be deposited with the United States Postal Service as first class mail in an envelope addressed to: Honorable Commissioner for Patents, Washington, D.C. 20231 on this date: **August 16, 2002**

Typed or printed name **Tammy L. Hodges**

Signature  Date **August 16, 2002**



"PATENT"

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Murray, Rex E.	§	EXAMINER: Unassigned
	§	
SERIAL NO.: 10/022,668	§	GROUP ART UNIT: 1754
	§	
FILED: December 18, 2001	§	ATTY. DOCKET NO.: 2001U013.US
	§	
FOR: Monoamide Based Catalyst	§	DATE: August 16, 2002
Compositions for the	§	
Polymerization of Olefins	§	

Honorable Commissioner for Patents
Washington, D.C. 20231

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with Title 37, Sections 1.56, 1.97 and 1.98 of the Code of Federal Regulations, and pursuant to Applicant's duty of candor and good faith toward the United States Patent and Trademark Office, the Examiner's attention is drawn to the art indicated on the attached PTO-1449 form.

It is respectfully requested that the Examiner consider these documents and return an initialed copy of the PTO-1449 form to the undersigned attorney.

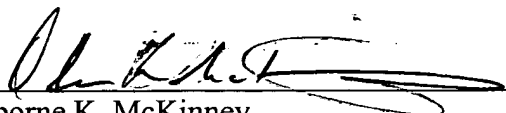
This disclosure statement should not be construed as a representation that a search has been made or that no other material information, as defined in 37 CFR § 1.56(a), exists.

A copy of each document is enclosed. Some of the documents may have markings thereon. No significance is meant to be attached to the markings.

We believe that this disclosure complies with the requirements of 37 CFR § 1.56, 1.97 and 1.98, and the Manual of Patent Examining Procedures § 609. If for any reason the Examiner finds that the disclosure or documents do not comply with these sections, notification is respectfully requested.

If there are any matters or issues outstanding, the Examiner is encouraged to contact the attorney of record at the telephone number listed below.

Respectfully submitted:

A handwritten signature in black ink, appearing to read 'Osborne K. McKinney', written over a horizontal line.

Osborne K. McKinney
Attorney for Applicant
Registration No. 40,084

Univation Technologies LLC.
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Houston, TX 77056
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Facsimile: (713) 892-3687

INFORMATION DISCLOSURE STATEMENT <i>(Use several sheets if necessary)</i>				ATTY. DOCKET NO. 2001U013.US		SERIAL NO. 10/022,668	
				APPLICANT Murray, Rex E.			
				FILING DATE December 18, 2001		GROUP 1754	

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U.S. PATENT DOCUMENTS							
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FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	PUBL. DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AC	EP 0 320 169 A2	14.06.89	Europe				
	AD	EP 0 349 886 B1	20.09.95	Europe				
	AE	EP 0 509 233 A2	21.10.92	Europe				
	AF	EP 0 761 694 B1	12.03.97	Europe				
	AG	EP 0 803 520 A1	29.10.97	Europe				
	AH	DE 42 02 889 A1	05.08.93	Germany				
	AI	WO 92/12162	23.07.92	PCT				
	AJ	WO 96/23010	01.08.96	PCT				
	AK	WO 96/33202	24.10.96	PCT				
	AL	WO 97/02298	23.01.97	PCT				
	AM	WO 97/45434	04.12.97	PCT				

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OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)		
	AN	Gibson et al., "Synthesis and structural characterisation of aluminum imino-amide and pyridyl-amide complexes: bulky monoanionic N,N chelate ligands via methyl group transfer" <i>Journal of Organometallic Chemistry</i> 550, (1998) 453-456.
	AO	Fuhrmann et al., "Octahedral Group 4 Metal Complexes That Contain Amine, Amido, and Aminopyridinato Ligands: Synthesis, Structure, and Application in α -Olefin Oligo- and Polymerization" <i>Inorg. Chem</i> 1996, 35, 6742-6745 (Feb.).
	AP	George J.P. Briotovsek et al., "Novel Olefin Polymerization Catalysts Based on Iron and Cobalt" <i>Chem. Commun.</i> , 1998 849-850 (May).

EXAMINER	DATE CONSIDERED
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*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line though citation if not in conformance and not considered. Include copy of this form with next comment to applicant

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FOREIGN PATENT DOCUMENTS							
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	BC						YES NO
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OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)	
BE	Deelman et al., "Lithium Derivatives of Novel Monoanionic Di-N,N'-chelating Pyridyl- and Quinolyl-1-azaallyl Ligands" <i>Organometallics</i> 1997, 16, 1247-1252 (Aug.).
BF	Deelman et al., "Novel monanionic di-N,N'-centered chelating ligands and the C ₁ and C ₂ symmetrical zirconium complexes" <i>Journal of Organometallic Chemistry</i> 513 (1996) 281-285 (Nov.).
BG	Hitchcock et al., "Transformaton of the Bis(trimethylsilyl)methyl into Aza-allyl and β-Diketiminato Ligands; the X-Ray Structures of [Li{N(R)C(Bu')CH(R)}] ₂ and [Zr{N(R)C(Bu')CHC(Ph)N(R)}Cl ₃](R = SiMe ₃)" <i>J. Chem. Soc., Chem. Commun.</i> (1994) 2637-2638 (Aug.).
BH	Hitchcock et al., "Transformaton of the Bis(trimethylsilyl)methyl into a β-Diketiminato Ligand; the X-Ray Structure of [Li(L'L')] ₂ , SnCi(Me) ₂ (L'L') and SnCi(Me) ₂ (LL), (L'L' = N(R)C(Ph)C(H)C(Ph)NR, LL = N)H)C(Ph)NH, R - SiMe ₃)" <i>J. Chem. Soc., Chem. Commun.</i> (1994) 1699-1700 (May).
BI	Clarke, et al., "Structural Investigations of the Dipyrromethene Complexes of Calcium(II), Nickel(II) and Copper(II)" <i>Inorganica Chimica Acta.</i> 166 (1989) 221-231 (Jun.).
BJ	Tjaden et al. "Synthesis, Structures, and Reactivity of (R ₆ -acen)ZrR' ₂ and (R ₆ -acen)Zr(R') ⁺ Complexes (R = H, F; R' = CH ₂ Me ₃ , CH ₂ Ph)" <i>Organometallics</i> 1995, 14, 371-386 (Jul.).
BK	Corazza et al., "cis-and trans-Dichloro-derivatives of Six- and Seven-co ordinate Zirconium and Hafnium bonded to Quadridentate Schiff-base Ligands. Crystal Structures of [Zr(acen)Cl ₂ (thf)], [M(salphen)Cl ₂ (thf)] 0.5thf, [M(acen)Cl ₂ , (M = Zr or Hf), and [Zr(msal)Cl ₂] acen = N,N'-ethylenebis(acetylacetonimine), salphen = N,N'-o-phenylenebis(salicylideneimine), msal = N-methylsalicylideneimine, and thf = tetrahydrofuran" <i>J. Chem. Soc. Dalton Trans.</i> (1990) 1335-1344 (Aug.).

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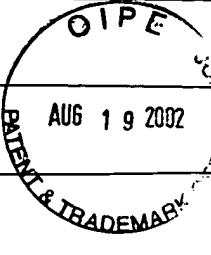
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U.S. PATENT DOCUMENTS							
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	CC					YES	NO
	CD						
OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)							
	CE	Cozzi et al., "Oxazoline Early Transition Metal Complexes: Functionalizable Achiral Titanium(IV), Titanium(III), Zirconium(IV), Vanadium(III), and Chiral Zirconium(IV) Bis(oxazoline) complexes" <i>Inorg. Chem.</i> (1995), 34, 2921-2930, (Dec.).					
	CF	Korine et al., "Bis(Trimethylsilyl)benzamidinate zirconium dichlorides. Active catalysts for ethylene polymerization" <i>Journal of Organometallic Chemistry</i> 503 (1995) 307-314 (Mar.).					
	CG	Gomez et al., "Mono- η -cyclopentadienyl-benzamidinato chloro compounds of titanium, zirconium and hafnium" <i>Journal of Organometallic Chemistry</i> 491 (1995) 153-158 (Aug.).					
	CH	Flores, et al., "[N,N'-Bis(trimethylsilyl)benzamidinato]titanium and-zirconium Compounds. Synthesis and Application as Precursors for the Syndiospecific Polymerization of Styrene" <i>Organometallics</i> 1995, 14, 1827-1833 (Oct.).					
	CI	Dias et al., "N-Methyl-2(methylamino)troponimine Complexes of Tin(II), Gallium(III), and Indium(III). Syntheses of [(Me) ₂ ATI] ₂ Gal and [(Me) ₂ ATI] ₂ InCl Using the Tin(III) Reagent [(Me) ₂ ATI] ₂ Sn" <i>Inorg. Chem.</i> 1996, 35, 6546-6551 (Jun.).					
	CJ	Cotton et al., "Structural Studies of formamidine compounds: from neutral to anionic and cationic species" <i>Polyhedron</i> vol. 16 No. 3 pp. 541-550, 1997 (Apr.).					
	CK	Gornitzka et al., "Coordination of the Bis(pyridyl)methyl Substituent to Group 1 and 13 Metals" <i>Organometallics</i> 1994, 13, 4398-4405 (May).					
	CL	Roesky et al., "Benzamidnatokomplexe mit Haupt- und Nebengruppen-Elementen - Strukturen von PhC(NSiMe ₃) ₂ TiCl ₂ and PhC(NSiMe ₃) ₂ MoO ₂ " <i>Chem. Ber</i> 121, 1403-1406 (1988) (Feb.).					
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							YES NO		
	DC								
	DD								
OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)									
	DE	Cloke et al., "Zirconium Complexes incorporating the New Tridentate Diamide Ligand $[(Me_3Si)N\{CH_2CH_2N(SiMe_3)\}_2]^{2-}$ (L); the Crystal Structures of $[Zr(BH_4)_2L]$ and $[ZrCl\{CH(SiMe_3)_2\}L]$ " J. Chem Soc. Dalton Trans 1995 25-30 (Jul.).							
	DF	Linden et al., "Polymerization of α -Olefins and Butadiene and Catalytic Cyclotrimerization of 1-Alkynes by a New Class of Group IV Catalysts. Control of Molecular Weight and Polymer Microstructure via Ligand Turning in Sterically Hindered Chelating Phenoxide Titanium and Zirconium Species" J. Am.Chem. Soc. 1995, 117, 3008-3021 (Jul).							
	DG	Brand et al. "Facile Reduction of a Dialkyl Zirconium(IV) Octaethylporphyrin (OEP) Complex by H_2 : Crystal Structure and Spectroscopic Characterization of $[(OEP)ZrCH_2SiMe_3]$ " Angew. Chem. Int. Ed. Engl. 1994 33, No.1 95-97 (Jul.).							
	DH	Solari et al., "Functionalizedable 5,5,10,10,15,15,20,20-Octaethylporphyrinogen Complexes of Early Transition Metals: Synthesis and Crystal Structure of Titanium-, Vanadium- and Chromium- (III) Derivatives and a Two-electron Oxidation of the Porphyrinogen Skeleton" J. Chem. Soc. Dalton Trans 1994 2015-2017 (Apr.)							
	DI	Uhrhammer et al., "Cationic d' Metal Alkyls Incorporating Tetraaza-Macrocyclic Ancillary Ligands. Synthesis and Reactivity of $(Me_3ta)M(R)^+$ and $(Me_4taen)M(R)^+$ ($M = Zr, Hf$) Complexes" J. Am. Chem. Soc. 1993, 115, 8493-8494 (Apr.).							
	DJ	Giannini, et al., "Tetraaza[14]annulenezirconium (iv) Complexes with Butadiene Ligands and their Relationship with Bis(cyclopentadienyl)zirconium(IV) Complexes." Angew. Chem. Int. Ed. Engl. 1994, 33 No. 21 (May).							
	DK	Kol, et al., "Synthesis of Molybdenum and Tungsten Complexes That Contain Triamidoamine Ligands of the Type $(C_6F_5NCH_2CH_2)_3N$ and Activation of Dinitrogen by Molybdenum" J. Am. Chem. Soc. 1994, 116, 4382-4390, (Oct.).							
	DL	Bei et al., "Synthesis, Structures, Bonding, and Ethylene Reactivity of Group 4 Metal Alkyl Complexes Incorporating 8-Quinolinolato Ligands" Organometallics 1997, 16, 3282-3302 (Mar.).							
EXAMINER				DATE CONSIDERED					
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	EC						YES NO
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OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages of Publication, Etc.)	
EE	Tsukahara, et al., "Neutral and Cationic Zirconium Benzyl Complexes Containing Bidentate Pyridine-Alkoxide Ligands. Synthesis and Olefin Polymerization Chemistry of $(pyCR_2O)_2Zr(CH_2Ph)_2$ and $(pyCR_2O)_2Zr(CH_2Ph)^+$ Complexes" <i>Organometallics</i> 1997, 16, 3303-3313 (Mar.)
EF	Kim et al., "Synthesis, Structures, Dynamics, and Olefin Polymerization Behavior of Group 4 Metal $(pyCAr_2O)_2M(NR_2)_2$ Complexes Containing Bidentate Pyridine-Alkoxide Ancillary Ligands" <i>Organometallics</i> 1997, 16, 3314-3323 (Mar.)
EG	Durfee et al., "Formation and Characterization of η^2 -Imine and η^2 -Azobenzene Derivatives of Titanium Containing Ancillary Aryloxy Ligand" <i>Organometallics</i> , vol. 9, No. 1, 1990, pp 75-80, (Jan.).
EH	Lappert et al., "Recent studies on metal and metalloid bis(trimethylsilyl) methyls and the transformation of the bis(trimethylsilyl)methyl into the azaallyl and β -diketimato ligands" <i>Journal of Organometallic Chemistry</i> 500, (1995) 203-217, (Sep.).
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